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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/565,274

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Fumio Okuda

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EXAMINER

NGUYEN, KHIEM D

ART UNIT

PAPER NUMBER

2823

MAIL DATE

DELIVERY MODE

02/10/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/565,274	<b>Applicant(s)</b> OKUDA ET AL.	
	<b>Examiner</b> KHIEM D. NGUYEN	<b>Art Unit</b> 2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Remarks*

1. Applicants' Amendment filed on November 10<sup>th</sup>, 2008 have been acknowledged. Applicants' argument in pages 3-4 with respect to the rejection of claims 1-8 under 35 U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the non-final rejection as set forth in Paper No. 20080818 mailed on August 21<sup>st</sup>, 2008 has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of newly discovered reference to Takiguchi et al. (U.S. Pub. 2002/0100906).

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated

that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 1 recites the broad recitation "**p** and **q** each independently represents an integer of 0 to 3, **p** + **q** being 2 or 3", in line 11, and the claim also recites "with the provisos that when **p** is 0 and **q** is 2, the plurality of R<sup>5</sup> do not bond to each other to form a ring structure and when **p** is 0, **q** is 2, and R<sup>1</sup> and R<sup>2</sup> bond to each other to form a ring structure, the ring structure is not substituted with phenyl", in lines 14-16, which is the narrower statement of the range/limitation.

It is respectfully submitted that Applicants claimed limitation in line 11 require **p** + **q** being 2 or 3. However, in lines 14-16, Applicants narrowed the claimed limitation to **p** is 0 and **q** is 2, thus **p** + **q** being 2 only. Therefore, in view of the case law above, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

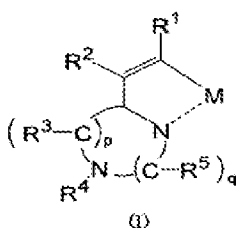
A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Takiguchi et al. (U.S. Pub. 2002/0100906).

In re claim 1, **Takiguchi et al.** disclose a metal complex compound having a partial structure represented by a following general formula (I):

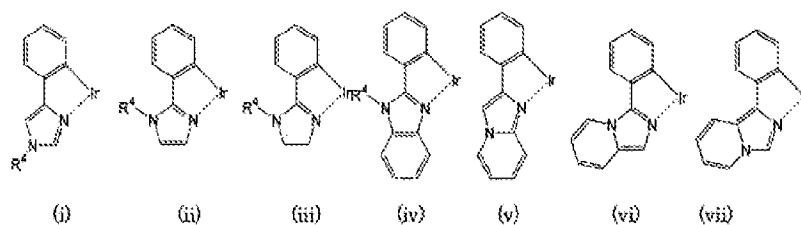


wherein  $R^1$  to  $R^5$  each independently represents a hydrogen atom, a cyano group, a nitro group, a halogen atom, a substituted or unsubstituted alkyl group having 1 to 20 carbon atoms, a substituted or unsubstituted amino group, a substituted or unsubstituted alkoxy group having 1 to 20 carbon atoms, a substituted or unsubstituted alkylsilyl group having 1 to 20 carbon atoms, a substituted or unsubstituted acyl group having 1 to 20 carbon atoms or a substituted or unsubstituted aromatic group having 1 to 30 carbon atoms; and a couple of  $R^1$  and  $R^2$ , a couple of  $R^2$  and  $R^3$ , a couple of  $R^3$  and  $R^4$  and a couple of  $R^4$  and  $R^5$  may bond each other to form a ring structure (see col. 11, lines 33-43);  $p$  and  $q$  each independently represents an integer of 0 to 3;  $p + q$  being 2 or 3; further, when  $p$  is an integer of 2 or greater, the plurality of  $R^3$  may bond each other to form a ring structure; when  $q$  is an integer of 2 or greater, the plurality of  $R^5$  may bond each other to form a ring structure, with the provisos that when  $p$  is

0 and q is 2, the plurality of  $R^5$  do not bond to each other to form a ring structure and when p is 0, q is 2, and  $R^1$  and  $R_2$  bond to each other to form a ring structure, the ring structure is not substituted with phenyl (see page 3, paragraphs [0034]-[0038] and formula (1)); and M represents metal atom selected from iridium (Ir) atom, rhodium (Rh) atom, platinum (Pt) atom or palladium (Pd) atom (see page 3, paragraph [0035]).

In re claim 2, as applied to claim 1 above, **Takiguchi et al.** disclose all claimed limitations including the limitation wherein the metal complex compound is a material for an light emitting element (see page 3, paragraph [0045] and page 4, paragraph [0066]).

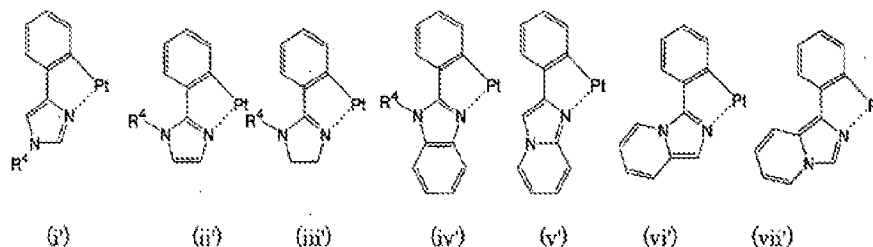
In re claim 3, as applied to claim 1 above, **Takiguchi et al.** disclose all claimed limitations including the limitation wherein said partial structure is represented by any one of following general formulae (I) to (iii) and (v) to (vii):



wherein  $R^4$  represents the same as the above description (see pages 7-10, Table 1).

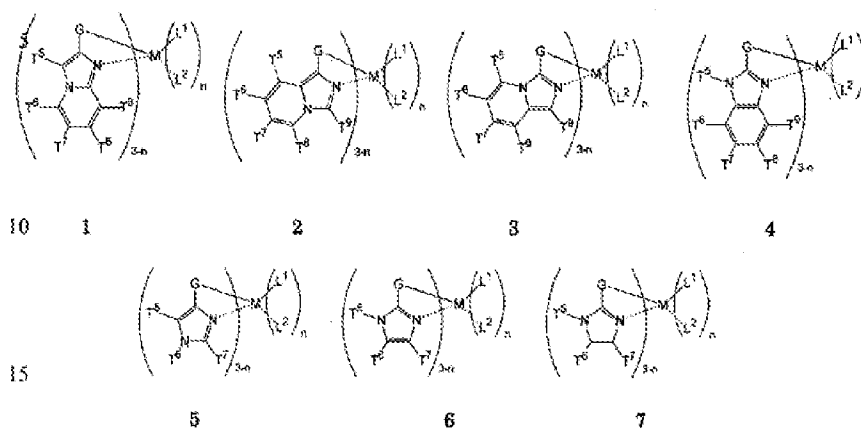
In re claim 4, as applied to claim 1 above, **Takiguchi et al.** disclose all claimed limitations including the limitation wherein said partial structure is represented by any one of following general formulae (i') to (iii') and (v') to (vii'):

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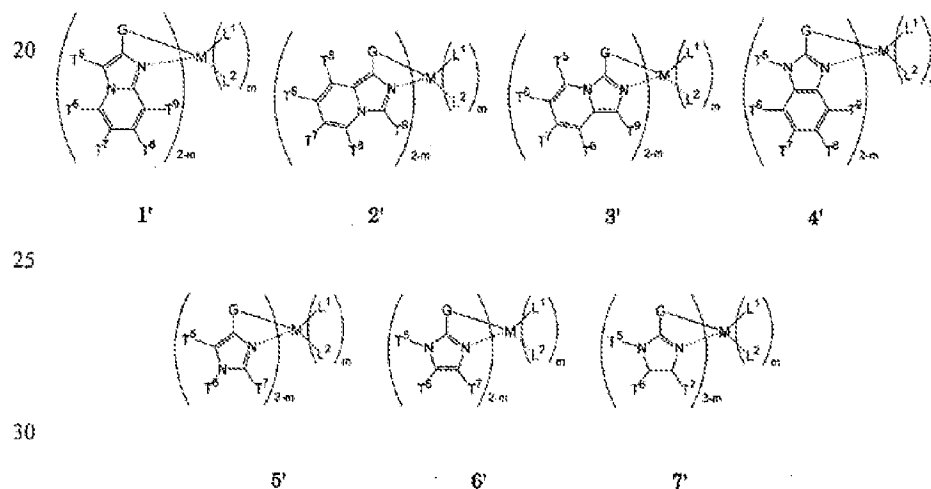


wherein R<sup>4</sup> represents the same as the above description (see pages 7-10, Table 1).

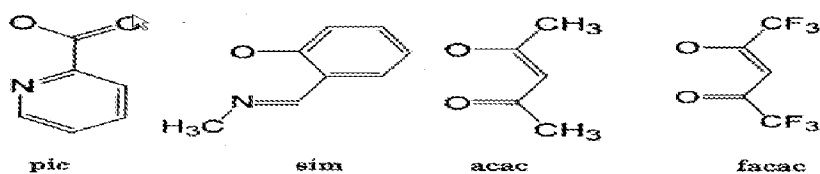
In re claim 5, as applied to claim 1 above, **Takiguchi et al.** disclose all claimed limitations including the limitation wherein the metal complex compound is represented by any one of the following general formulae 1 to 3, 5 to 7, 1' to 3' and 5' to 7':



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wherein T<sup>5</sup> to T<sup>9</sup> each independently represents a hydrogen atom, a cyano group, a nitro group, a halogen atom, a substituted or unsubstituted alkyl group having 1 to 20 carbon atoms, a substituted or unsubstituted amino group, a substituted or unsubstituted alkoxy group having 1 to 20 carbon atoms, a substituted or unsubstituted alkylsilyl group having 1 to 20 carbon atoms, a substituted or unsubstituted acyl group having 1 to 20 carbon atoms or a substituted or unsubstituted aromatic group having 1 to 30 carbon atoms; and a couple of T<sup>5</sup> and T<sup>6</sup>, a couple of T<sup>6</sup> and T<sup>7</sup>, a couple of T<sup>7</sup> and T<sup>8</sup> and a couple of T<sup>8</sup> and T<sup>9</sup> may bond each other to form a ring structure; M represents any one metal atom selected from iridium (Ir) atom, rhodium (Rh) atom, platinum (Pt) atom or palladium (Pd) atom; and L<sup>1</sup> and L<sup>2</sup> each independently represents any one structure expressed by following structures:

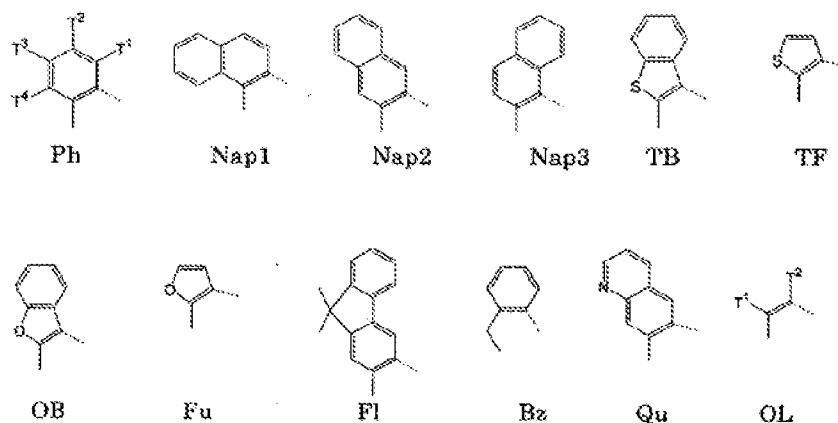




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n represents an integer of 0 to 2, and m represents an integer of 0 or 1. **G**

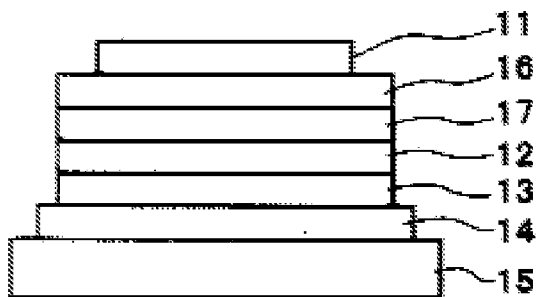
represents any one structure represented by the following structures:



wherein a dotted line "-----" represents a covalent bond with the above M; and T<sup>1</sup> to T<sup>4</sup> in Ph each independently represents a hydrogen atom, a cyano group, a nitro group, a halogen atom, a substituted or unsubstituted alkyl group having 1 to 20 carbon atoms, a substituted or unsubstituted amino group, a substituted or unsubstituted alkoxy group having 1 to 20 carbon atoms, a substituted or unsubstituted alkylsilyl group having 1 to 20 carbon atoms, a substituted or unsubstituted acyl group having 1 to 20 carbon atoms, and T<sup>1</sup> and T<sup>2</sup> in OL each independently represents a hydrogen atom, a cyano group, a nitro group, a halogen atom, a substituted or unsubstituted alkyl group having 1 to 20 carbon atoms, a substituted or unsubstituted amino group, a substituted or unsubstituted alkoxy group having 1 to 20 carbon atoms, a substituted or unsubstituted alkylsilyl group having 1 to 20 carbon atoms, a substituted or unsubstituted acyl group having 1 to 20 carbon atoms or a substituted or unsubstituted aromatic

group having 1 to 30 carbon atoms (see page 3, paragraphs [0034]-[0038] and Table 1).

In re claim 6, as applied to claim 1 above, **Takiguchi et al.** disclose all claimed limitations including the limitation wherein an organic electroluminescence device which comprises at least one organic thin film layer **12** sandwiched between a pair of electrode consisting of an anode **11** and a cathode **14**, wherein the organic thin film layer **12** comprises the metal complex compound according to claim 1, which emits light by applying an electric voltage between the pair of electrode **11** and **14** (see page 1, paragraphs [0002]-[0015], page 4, paragraph [0066] and FIGS. 1A-C).



**FIG. 1C**

In re claim 7, as applied to claim 6 above, **Takiguchi et al.** disclose all claimed limitations including the limitation wherein said light emitting layer **12** comprises said metal complex compound (see pages 3-4, paragraphs [0045]-[0046]).

In re claim 8, as applied to claim 6 above, **Takiguchi et al.** disclose all claimed limitations including the limitation wherein said organic thin film layer **12**

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comprising the metal complex compound is formed by coating process (see pages 3-4, paragraphs [0045]-[0053]).

***Response to Applicants' Amendment and Arguments***

6. Applicants' arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHIEM D. NGUYEN whose telephone number is (571)272-1865. The examiner can normally be reached on Monday-Friday (8:30 AM - 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on (571) 272-1907.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kiem D. Nguyen/  
Examiner, Art Unit 2823

/K. D. N./  
February 05<sup>th</sup>, 2009